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ABSTRACT

Delivery needle

A needle (10) for the delivery of a liquid to a subject comprises a shaft (11) having an internal surface defining a longitudinally extending internal bore open at one end (15) to receive a liquid supply, the other end (16) being sharpened for penetration of the skin of the subject. A plurality of apertures (18) are provided, each in the form of a cut extending across the external surface of the side of the shaft (11) at a sufficient depth to establish communication with the bore. The external aperture area is approximately three times greater than the internal aperture area, thereby ensuring that the liquid is delivered to a large surface area of tissue to improve absorption and eliminate fluctuations in the delivery rate. The needle (10) can be mass-produced by aligning a batch of shafts alongside one another and running a grinder across the surfaces of the shafts to create the apertures (18) in the entire batch of needles simultaneously.<Fig.3>